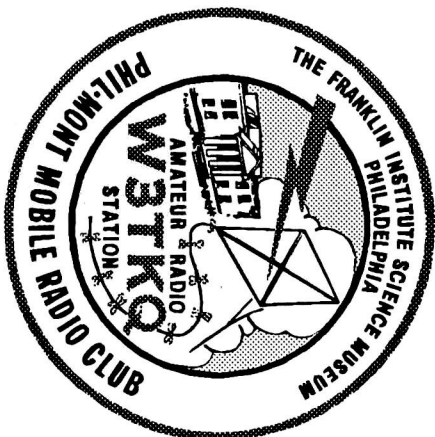


FIRST CLASS MAIL



A Publication of  
THE PHIL-MONT MOBILE RADIO CLUB, INC.  
P.O. Box 88, ABINGTON, PA 19001

# The Blurb

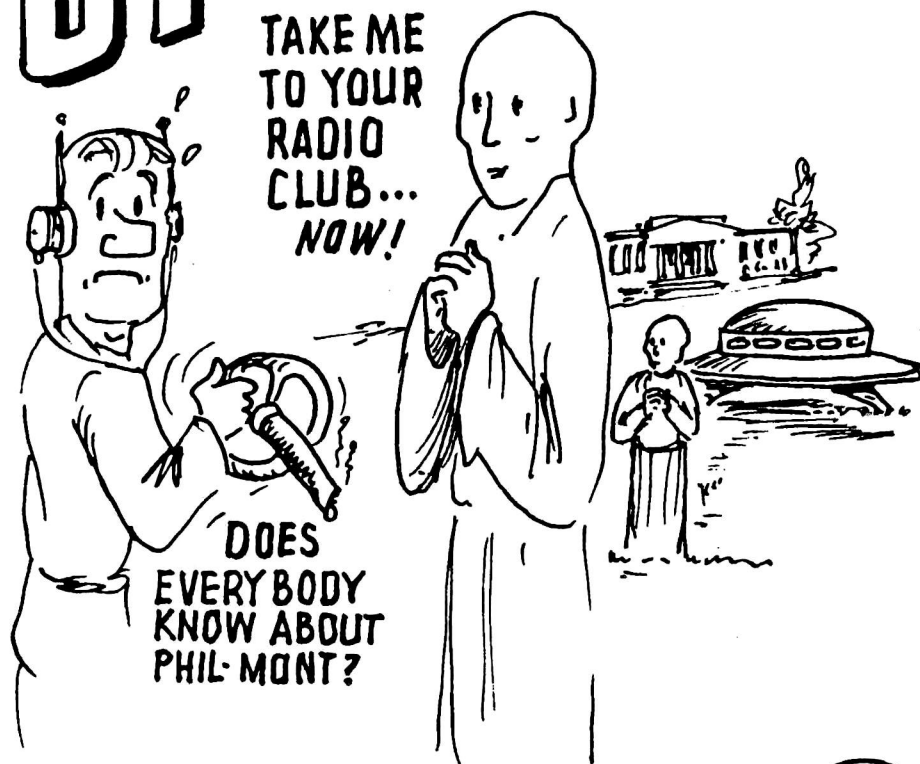


# The Blurb

June 1994

# UFO<sup>s</sup>

AT FAMILY  
NIGHT MEETING



## VISIONS.. OR VISITATIONS?



## VOLUME 44

is published monthly by, and for, the members of **The PHIL-MONT MOBILE RADIO CLUB, INC.** whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs; requests should be sent to the Editor. *Blurp* subscriptions are available to nonmembers for \$10 addressed to the Treasurer. The club meets sometime after 7:30 p.m. on the first non-holiday WEDNESDAY of every month at **The Franklin Institute Science Museum**, Benjamin Franklin Parkway at 20th Street, Philadelphia. Enter from Winter Street, or the parking garage on 21st street.

## ALL VISITORS ARE WELCOME!

Amateur Radio License Examinations - the first non-holiday Thursday of every month at The Franklin Institute Science Museum—doors close at 6:30 p.m. - *SHARPI*

## CLUB INFORMATION

24-Hour Information Number at W3TKQ: (215) 448-1139

Repeater frequencies: 147.03 MHz (Roxboro input requires no PL, but outputs 91.5 Hz.)

PL required for off-site receiver (OSR) access:

Bucks County 131.8 Hz—Center City 103.5 Hz—Lansdale 114.8 Hz

444.80 MHz (186.2 Hz PL)

Simplex frequency: 147.51 MHz

Packet BBS frequency at W3TKQ: 144.99 MHz

Mailing Address: P.O. Box 88, Abington, PA 19001

## STATIONS

W3QV - 147.03 MHz. Repeater - 8200 Ridge Avenue, Philadelphia, PA - Trustee W3BBB

W3TKQ - The Franklin Institute Science Museum, Philadelphia, PA - Trustee W3PWG

**AMATEURS (with license) ARE ALWAYS WELCOME TO OPERATE W3TKQ.**

## OFFICERS

PRESIDENT: KB3IV, Ed Masarsky, 15 Poe Avenue, Wyncote, PA 19095 (215) 572-5238

1st VICE PRESIDENT: WU3I, Steve Hoch, 4638 Oakland Street, Philadelphia, PA 19124 (215) 535-8061

2nd VICE PRESIDENT: W3STW, Al Tribble, 2848 Carter Road, Trevose, PA 19053 (215) 639-6771

SECRETARY: KE3CZ, Bob Wilcox, P.O. Box 21914, Philadelphia, PA 19124 (215) 535-7355

TREASURER: N3KGG, Dave Witkowski, 730 Greymont Street, Philadelphia, PA 19116 (215) 969-5485

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 Budget /Audit: K3KUD  
 Directory: WB3KOJ  
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 Emerg. Coord.: W3BBB

Field Day: N3IEI  
 Membership: AA3BB  
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 Refreshments: N3FVI

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 Welcome: NEEDED

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Artist: N3QIE

Labels: WB3KOJ

Publisher/Typist: W3IIM

**DEADLINE:** To be assured of publication in the current month, all copy MUST be in the hands of the Editor at the Bored of Directors' Meeting!

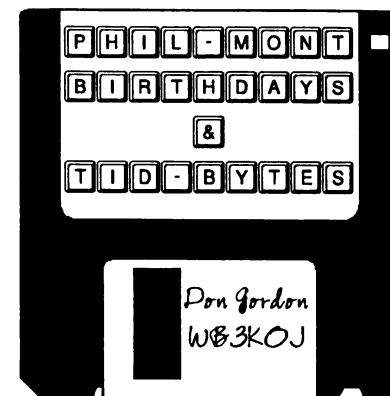
## NET SCHEDULE

SUNDAY	09:30	147.030 MHz FM	"SUNDAY MORNING 2 METER NET"
	10:00	28.993 MHz SSB	"10-ON-10 NET"
	10:20	3.993 MHz SSB	75 METER NET
TUESDAY	20:00	147.030 MHz FM	CW PRACTICE NET (RESUMES IN SEPT)
LAST WED	20:00	147.030 MHz FM	W3TKQ OPERATORS' NET

## JUNE BIRTHDAYS

- 03 Sandy Lewis (XYL N3DGU)  
Bob Whelan - KB2GAJ
- 04 Dick Moll - W3RM  
Sue Sadwin - N2CYA
- 05 Bud Heilbron - W3ISN
- 06 Chuck Hillman - K3QLY
- 09 Michael McLaughlin - WB3JHX
- 10 Thomas Maresca (OM K3YPH\*)
- 11 Wally Newell - K3JJO  
Marc Zaharchuk - WA3CRM
- 12 Paul Bergsman - N3PSO\*  
Anthony DiBenedetto - K3GYK  
Miriam Elmaleh - K3UJI (XYL K3HIJ)
- 13 Barry Brenner - N3FYH
- 14 Larry Potts - N2MAW
- 15 Joel Kleinguenther - KA3SWU\*
- 19 Marie Rhoads (XYL ND3Q)
- 21 Jim Rorick - N3GEN
- 23 Frank Cook - KB3CT
- 24 Walt Bardsley - K3OJA  
Dorothy Foley (XYL N3PRA\*)  
Anthony Vece - N3PWT\*
- 27 Sylvia Soss (XYL N3AN)
- 28 Betsy Reichert - N3EBE
- 30 Mike Lenczynski - KA3EIP  
Mary Kane (XYL N3OOL\*)

\*Indicates new member 1993-94



## HELP PHIL-MONT

Are you planning to join ARRL or renew your current membership? Help P.M.R.C. by joining or renewing through the club, contact the Treasurer, Dave Witkowski, N3KGG for details.

## MEMBERSHIP STATS

At press time P.M.R.C. has:

163 Regular  
 15 Family  
 3 Honorary  
 8 Pending

## LICENSE CLASS

47 Extra  
 49 Advanced  
 23 General  
 69 Technician  
 0 Novice

## EXTRA - EXTRA READ ALL ABOUT 'EM!

K3JJO upgraded to the "Big E" ... rumor has it that W3YLT's XYL insisted they keep up with the Newells, so Bob made the supreme effort and passed both elements ... congratulations to both exalted ones.



**NEW MEMBER APPLICATION**

CALL: **KA2FFP**

NAME: James Larkin

HANDLE: Jim

CLASS: Technician-Plus

ADDRESS: 715 Webster Drive  
Monroeville, NJ  
08343-9057

HOME PHONE: (609) 881-2917

BUSINESS PHONE: (215) 492-2842

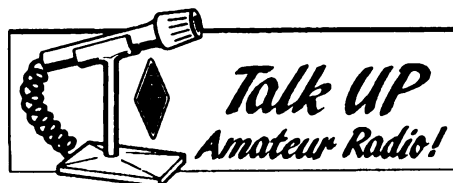
OCCUPATION: Aircraft Mechanic

INTERESTS: Welcome, Publicity

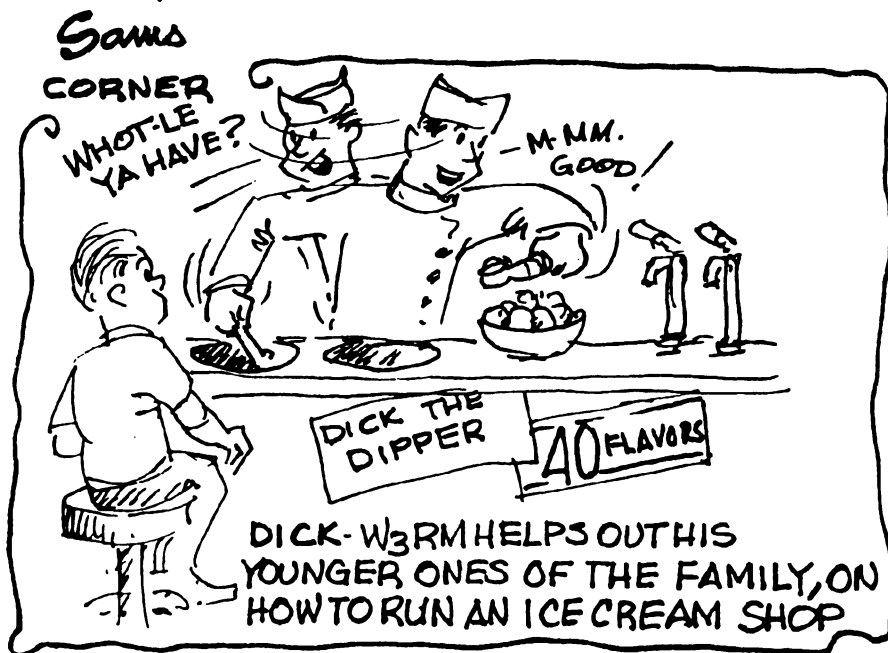
### Don's Cryogenic Solution?

Auto repairman to 'KOJ: "If you want, we can freeze your car until future mechanics discover a way to repair it!"

Reader's Digest via WU3I



**Call**  
**1-800-32-NEW-HAM**  
for free information for  
prospective hams



## The PREZ SEZ

Ed Masarsky, KB3IV



June is busting out all over for Phil-Mont. I can't recall a busier month since I joined the club in 1980. On Sunday, June 5, the Corestates Bike Race returns for another 156 miles of speed, color and excitement. Phil-Mont has provided communications for every race held in this series. It is something to see in person, rather than on the boob toob. I am going to be in my usual spot in the pits. I will be easy to spot. I'm the only one not wearing spandex. Get in touch with AA3EP or N3FVI, and ask for a spot along the course. I promise you a great time.

On Saturday, June 11, the Arthritis Foundation Bikeathon takes place. The Amateurs of the Delaware Valley will be pitching in to help this great cause. Phil-Mont always is well represented, and I know this year will be no exception. Contact our Special Events Chairman, Charlie, AA3EP, to offer your services.

The weekend of June 25-26 has two events scheduled. First, Paddlerama on the Delaware. Previous issues of the *Blurb* have described this event. The Club has always supported the Boy & Girl

Scouts, and we're glad to do it again this year. I know some of the "Old Timers" in the Club will be there. Let's get some newer members out to have fun in the water. Steve, WU3I, is coordinating this event. Let him know if you will be there both days, or at least one.

The second event is Field Day. This is a great opportunity for "New Timers" to the hobby to see what it's like to operate on all the bands, all the time. It's something every ham should experience at least once. The entire earth is saturated with RF for 24 hours. I also want to encourage our more senior members to come out and show us how you used to do Field Day ages ago. (How about W3VVS using Spark-Gap.) Our coordinator for field day is Chris, N3IEI. He needs radios, antennas, and bodies. Call him and let him know which items you can supply.

Finally, but actually firstly, Family Night at the Fels Planetarium is the program for Phil-Mont's June 1st General Meeting. The meeting part of the evening will be no more than 10-15 minutes, and it will start on time. Bring everyone along for a terrific show. ☺

## UPCOMING

**JUNE 1 General Meeting**  
**FAMILY NIGHT**  
**Fels Planetarium Program**  
**"UFOs—Visions or Visitations?"**  
**Admission: \$2.50 per person**

**June 2 License Examinations at**  
**The Franklin Institute**

**June 15 Directors' meeting at**  
**W3BBB's**

**June 25-26 FIELD DAY**  
**&**  
**PADDLERAMA**

**JULY 6 General Meeting**  
**A Double Feature!**  
**Phil-Mont Does Dayton**  
**(the original 1984 masterpiece)**  
**~ and ~**

the premier showing of the its sequel,  
**Phil-Mont Does Dayton II—**  
**The Next Generation**

**July 7 License Examinations at**  
**The Franklin Institute**  
**July 20 Directors' Meeting at**  
**W3GQD's**

## HAMFESTS

**July 10 TIMONIUM, MD**  
**BRATS**

**Aug 7 WARRINGTON, PA**  
**Mid-Atlantic ARC**

**Aug 14 EASTON, PA**  
**Delaware Lehigh ARC**

**Aug 28 MULLICA HILL, NJ**  
**Gloucester County ARC**

**Sept 11 GAITHERSBURG, MD**  
**Foundation for Amateur Radio**

**Sept 18 PENNSAUKEN, NJ**  
**South Jersey RA**

## V.E. TEST LOCATIONS

Confirm all information, in advance, with the contact person. Licensed applicants must bring the original, and one photocopy of their license. All applicants, including children, must present positive ID. Also bring the original, and a copy, of any Certificate of Successful Completion needed to prove current status. **The ARRL VEC's 1994 test fee is \$5.75; there is no charge for a Novice test.**

### • THE FRANKLIN INSTITUTE

Monthly, 1st Thursday—Dusty Rhoads, ND3Q  
 (215) 879-0505 day, (215) 482-0386 home

### • BELLMAWR, NJ

Monthly, 3rd Thursday—Bill Helmatag  
 (609) 546-7710

### • BRYN MAWR

Irregularly—Bob Lees  
 (215) 265-6032

### • LEVITTOWN

Monthly, 1st Saturday—George LeNoir, WR3B  
 (215) 943-4886

### • LINWOOD, PA—(Commercial & Amateur Exams.)

Quarterly—Barb Levine, AA3DV  
 (215) 859-9210, (302) 792-7760 home

### • MORRISVILLE

Monthly, 3rd Thursday—Dave Munson, NM3K  
 (215) 788-7515

### • POTTSTOWN

Monthly, 1st Monday—Warren Erdman K3ZXQ  
 (215) 679-5764

### • TELFORD

Monthly, 3rd Monday—Warren Erdman K3ZXQ  
 (215) 679-5764

### • UNIVERSITY OF PA

Monthly, Last Saturday—Garrett Klein, WZ3G  
 (215) 898-8538 shack, (215) 222-8752 home

### • WARMINSTER

Odd Months, Last Wed.—Tom Michaud, WA3TQJ  
 (215) 343-3494

## PUBLIC SERVICE EVENTS

Charlie Weigand, AA3EP (215) 324-0167

**June 11 Arthritis Bikeathon**

**June 25-26 Paddlerama**

**June 5 Core States Bike Race**

**Sept 17-18 M.S. 150 City-to-Shore Bike Tour**

Their mission is to ensure the safe passage of all who precede them down the river.

Our mission is to relay race information. If you are assigned to an 'observation point' you are responsible only for observing safe passage past your location. From each set of 'gates' we will relay penalty point information for each canoe. From the 'changeover' points will come 'official' time information.

At the end of the first day you are invited to partake of a PMRC tradition: A sumptuous campground-meal prepared this year by WU3I! (If you've made prior arrangements.)

Day two begins in Easton (or at Steve's campsite, if you're really hungry!). The starting location is on the eastern shore (Phillipsburg access area), just north of the Phillipsburg bridge (the old bridge, not Rt 22!). From there the Scouts paddle across two rivers (the Delaware AND the Lehigh!) to their first set of gates, just below the "Canal Museum."

At the end of the second day all Scouts (and PMRCers) gather at Tinicum park where the final results are calculated, the winners determined, and awards presented.

Contact Steve, WU3I if you'd like to participate on one or both days. ☺





## What's a PADDLERAMA anyway?

### BACKGROUND

Paddlerama is sponsored by the Bucks County Council of the Boy Scouts of America. It's a 50 mile, two day, canoe race which starts at the Delaware Water Gap and ends at Tinicum Park (14 miles north of New Hope). It is broken up into two 25-mile segments. The first half (Saturday) ends in Easton. The second day (Sunday) begins at the launching area at the east end of the old Easton-Phillipsburg bridge.

The annual event's first running was in 1962; Phil-Mont's participation began in 1966. Our involvement is to help ensure the health & welfare of the participants, which has been tested frequently due to the varying river conditions over the years.

In past years there have been as many as 43 canoes in the race; both girls and boys, aged 13 to 18, participate. In recent years, however, the turnout has been more in the order of 12 to 16 canoes.

The Delaware River is normally a relatively calm body of water, with only one area of the race (Foul Rift), just below Belvidere, NJ, being classified as "Class 2" conditions (on an international scale of 1 to 6). Of course, river conditions can vary widely from year to year.

The race goes on, rain or shine, halted only for extreme adverse conditions such as electrical storms or extremely high (and fast flowing) water. (Have you ever seen a canoe literally wrapped around a bridge abutment?)

### THE RACE

Each team normally consists of six members and one canoe. On each day there are three "relays," each consisting of pas-

sage through three "gates" and a "changeover" [*changed somewhat this year—ed*]. The gates (poles) are suspended vertically over the river (usually in an area of rapid water conditions). Each canoe is judged on its successful passage (forward and reverse!) through the gates, and penalty points (worth 5 minutes each) are added to the times of those who fail to make clear passage. The changeover is just what the name implies, however, it's possible to get penalty points here too, due to improper procedures. At the end of each day, times and penalty points are calculated and posted for each relay.

### PHIL-MONT

Our part in the race begins on Saturday morning, on the New Jersey side of the river at the Kittatinny Point Information Station at the Delaware Water Gap (approx. 1 hour and 45 minutes north of Doylestown), where we link-up with the Scouts. Here the Scouts conduct their first-day briefing just prior to the start of the race. Many of us will take this opportunity to find those scouts who will be at the same location to which we have been assigned. (This comes in handy if you are unfamiliar with the territory, or need a canoe to get to your assigned location.) Generally there are three types of assignments that you might get: 1) Gates; 2) Changeovers; 3) Observation points. These will be more fully explained below.

The "sweep canoe" is loaded and put in the river at this point, too. Captained, in recent years, by WB3BPI (Brad King, son of 'PXY) and his able crew, who are equipped with radios with which they keep in touch with their very own "chase car."

## MINUTES

### MAY GENERAL MEETING

Bob Wilcox, KE3CZ, Secretary



Ed, KB3IV, called the 532nd General Meeting to order at 7:52 p.m., and on behalf of the Treasurer, N3KGG, assured us that there was plenty of money left, or at least there should be.

...and for the Membership Committee Chair, AA3BB: due in part to some accidents on both I-95 and the Sure-Kill Expressway, Bill did not make the Meeting. Ed assured us that there were plenty of members left, or at least there should be.

...and for Field Day Chairman, N3IEI, he reported that the last weekend in June is Field Day. The Roxborough Site is the one that will be used. Ed assured us there was plenty of Field left, or at least there should be.

WU3I for Paddlerama... also the last weekend in June, and hoping to get some support. Although rumored to be beyond help, Steve insists that he needs more help with this canoe race. If you have some time, and can lend a radio and yourself, feel free to do so. Ed assured us that Steve was beyond help, or at least he should be.

AA3EP plugged the MS Spring Classic, which, as of this writing, would be completed, but was looking for some help with the Corestates Bike Race on June 5th. Call Charlie or Bill—N3FVI if you want to help out. On June 11th Charlie needs some folks for three separate races for the Arthritis Foundation.

KB3IV (again) mentioned that next month's meeting would be in the Planetarium, as it is "Family Night." Subsequent Meetings will be held in the 5th floor class-

room, room 501, as Choices Forum will be undergoing renovation. He also asked that members reply to the questionnaire in the last *Blurb*.

AA3CH reported on great success with his educational stint at The Institute, as two of his potential Technicians have actually gone on to become Generals, with the others doing well.

N3PDO for Welcoming, reported that there were 22 members and 7 visitors. The visitors were Maureen McCloskey, David Bonk—N3RUE, Anna Popovic, Jim Lamont, Joe Lamont, Carter Craigie—KD3AO and Bob Dagit. Welcome to all.

The 50-50 was sold and drawn by Anna Popovic, and won by yours truly, KE3CZ. Ed assured us that it was in American currency, or at least it should be.

WU3I asked for some suggestions for upcoming programs, as well as volunteers mentally deranged enough to open their home to the unruly mob known affectionately as the Board of Directors. September, October and November are available, just jump in there and take one.

Steve then introduced ARRL Atlantic Division Vice Director, and fellow Phil-Mont member, Kay Craigie—WT3P. Kay was informative with regards to the League and FCC current happenings, as well as fielding several questions from the audience.

At 9:17 p.m. the Meeting was adjourned, and Ed assured us we all had a good time, or at least we should have... ☺

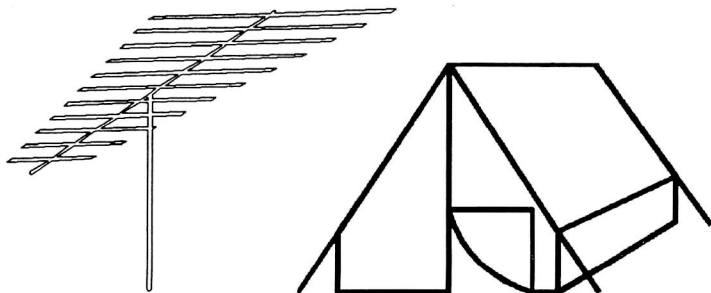
# Phil-Mont Paddlerama Field Day

*Names that go together on June 25 & 26.*

Contact  
WU3I for



and  
N3IEI for



Team members to access all EOCs in the state, and to pass through blockades, etc. during emergency operations.

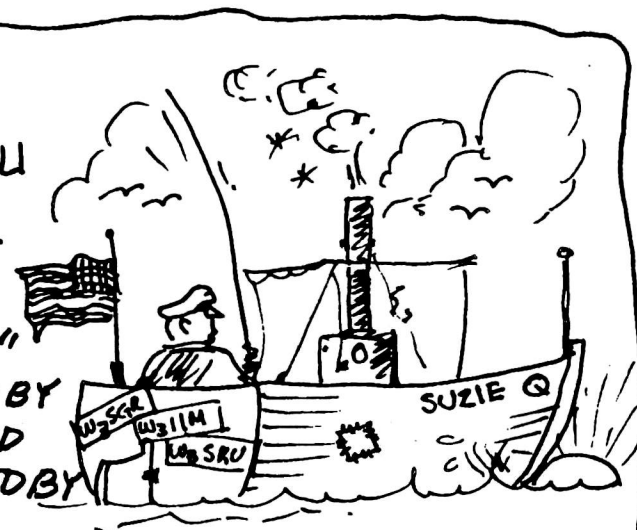
Probably the most major requirement found necessary during Hurricane Andrew was the need for "staging areas." During the aftermath's early hours, both supplies and volunteers, including hams, poured into the area with no assignments as to where they should go or who they should report to. Staging areas, upstream of the disaster area, were quickly established. For example, all trucks, coming in from all over the country, were directed to a staging area in West Palm Beach where they received their destination assignments, and were given a police escort into the disaster area. All County Emergency

Management and ARES/RACES emergency operations plans now include the use of staging areas.

Ham radio disaster communications support, in the future, will be primarily provided by Communications Assistance Teams (CAT), jump teams such as mine, consisting of trained ARES/RACES people. Here again, a staging area outside of the affected area will be established where the teams will receive their assignments. The CAT teams will establish contact with both the affected area and their home EOCs via radio. At least one backup team will remain at the home EOC, ready to "spell" the teams in the field if necessary. Each team will consist of three or more ham radio operators. ☺

Same  
KATTY  
KORNER

GIL W3SRU  
HEADS INTO  
THE SUNSET  
WITH HIS  
"NEW YATCH"  
ONCE OWNED BY  
W3IIM AND  
ONCE OWNED BY  
W3SGR



**"DON'T TAILGATE... WAIT"**—for the courtesy ☺!



## The Southern Reporter

Howard "Gil" Gilpin, W3SRU

**M**uch activity has been occurring in ARES/RACES organizations within the state of Florida since Hurricane Andrew. While the various organizations had written plans prior, the enormous magnitude of Andrew revealed the weaknesses in them and improvements that they required. Also awakened were the hospitals, nursing homes and other facilities that found out that they really required ham radio communications assistance in the days immediately following a major disaster.

As an ARES Assistant Emergency Coordinator (AEC) and the Communications Assistance (Jump) Team Director in Lee County, where I reside, I recently participated in 12 ARES/RACES activities within a single 20-day period. These included operation in three Simulated Emergency Tests (SETs), visits to hospitals and nursing homes to plan for, and assist in the installation of, antennas and an all day ARES/RACES seminar with State Emergency Management officials.

SETs were conducted separately with all county hospitals, and then with nursing homes. These are facilities that cannot be evacuated. Ham radio backed up cellular phone and local government 800 MHz communications systems, both of which failed during Andrew. Radio traffic included pleas for supplies and medical personnel assistance. The institutions established "war rooms" wherein medical and administra-

tive people processed incoming and outgoing radio messages. The operation at each facility was evaluated by outside public safety officials.

I was asked to participate in another interesting SET to test for the first time ham radio communications' capability on 2-meters between hospitals located in Fort Myers and Miami, about a 150-mile haul. The ham in Miami used 150 watts and a 12-element beam to hit the Collier County RACES repeater in NAPLES (on 147.03!). I used 45 watts to access the repeater, 35 miles away. We operated from 10 a.m. until 2 p.m., through the normally poor 2-meter daytime propagation period, and communications were 80 to 90 percent reliable, which proved to be satisfactory. In the future, will also test 75 and 40 meters as alternate paths.

I attended an all day seminar, cosponsored by the Florida Department of Emergency Management, (DEM), and the South Florida Section ARES. All Counties were represented, and over 60 people attended. Various new and revised emergency operations plans were issued and discussed. DEM announced that they are installing a satellite communications system that will have four each data and voice channels, and they envision that HT to HT communications will be possible throughout the state. A standard State of Florida ARES/RACES ID badge has been developed that will permit Emergency Coordinators and Jump

## MINUTES

### MAY DIRECTORS' MEETING

Steve Hoch, WU3I, Acting Secretary

**K**B3IV opened the meeting at 8:00 p.m., and quickly lost control 'till 8:17 when things started to make sense. Attending were KB3IV, WB3KOJ (3rd time this year—WOW!!), N3IEI, W3BBB, W3RM, K3KUD, N3KGG, AA3EP, W3STW, WU3I, W3IIM, W3GQD, N3FVI, and N3DHI.

N3KGG reported that the treasury took in less than it spent, but was healthy for May 18. Dave was congratulated for finally having his report ready on time, and not needing the calculator that was on hand.

WB3KOJ on the directory: the one mistake was corrected, and the update will be out later this year.

KB3IV for a multitude:

Membership—there were three new applicants to vote on. They were N3POJ—Stephanie Weigand, N3RCQ—Joe O'Donnell and N3RCR—Walter Rice, Jr. W3RM made the motion to accept the new applicants; K3KUD seconded. The motion was carried unanimously.

Net Controls—We will be needing 2 new controls in the fall for the CW net on Tuesdays. At this point W3BBB announced he HATES CW. Why, we are still not sure, but you heard it here first. The net controls will be asked to poll the members about attendance for the June Family Night meeting.

N3IEI reported that all is ready for Field Day 94; the site is the KYW tower site in Roxborough. The group will be operating 160 meters through satellite. If you haven't called Chris yet to get involved, stop wasting your time and pick up the phone.

WU3I on Paddlerama: All is ready. The use of repeaters has been cleared, and

we will be setting up on Friday, June 24 in the campground outside Bath PA.

On Programs: June is Family Night in the Planetarium. July will be the long delayed premiere of the sequel to Phil-Mont Does Dayton. August will be Packet Month with a live Demo of packet to Foreign Countries on 2M.

AA3EP on special events: Charlie thanked all who participated in the MS Spring Challenge the past weekend, and reminded all of the upcoming events. June 5 is Corestates Bike Race, and June 11 is Arthritis Foundation in West Chester.

KB3IV on special events: Ed reported on the Solar Car Race ending at The Franklin Institute on May 28, 1994. Ed will be covering this event.

W3BBB reported that the repeater was working. The low audio problem on the UHF side has been exorcised, and the demon is gone.

WU3I reported that all is well with the Volunteer Exams program, and reminded those wanting to help to call Dusty, ND3Q.

KB3IV, WU3I & N3FVI reported on W3TKQ. Much to the happiness of W3STW, the Eureka Sweeper Vac. has been repaired, and is on its way to the station. Steve read the first draft of a letter for a slow scan TV board for a computer that has been assembled from donations.

KB3IV on the 45th Anniversary: will try to combine with Old Timers' Night.

### NEW BUSINESS

WB3KOJ reported on the fact there is no insurance on the equipment at the repeater site. After a long discussion W3RM will investigate the ARRL insurance and report to the Board. ☺



## When lightning strikes, and other natural atmospheric electricity

Paul Wilkins, AB4CY

At any given moment there are about ten thousand thunderstorms in progress somewhere on the earth. Each one produces some lightning which radiates an electromagnetic pulse that travels worldwide, guided by the earth's magnetic field lines. Lightning is a complicated phenomenon. Close-by strikes produce high induced voltage in electrical conductors as well as the static 'crashes' heard on AM radio. In fact, FM radio was developed because it could be made static free. A direct strike can split trees, tumble chimneys, start fires and produce havoc with electrical equipment.

The typical lightning bolt is about an inch in diameter, carries a peak current of several hundred thousand amps, and lasts about one hundredth of a second. The rate of rise of current in a strike is 8 to 15 kiloamps per microsecond. Most lightning carries a negative charge in a cloud to earth direction, but some lightning is positive, and sometimes it travels from the ground up to a cloud, or from cloud to cloud.

There have been cases where a rubber insulated #14 antenna wire has been struck, and what survived was only a hollow tube of insulation.

### Thunder

Thunder is the name for the sound that usually accompanies a lightning strike. The sound is the result of the rapid expansion of the air due to the sudden intense heating by the heavy current flow of the lightning. Since sound travels about 1,100 feet per second, it takes about five seconds to travel a mile. Thunder can seldom be heard more

than 8 to 15 miles from its source, while cannon fire can be heard at much greater distances. Rolling thunder comes from slanted strikes where the sound from one part of the strike takes longer to reach you than the sound from other parts of the strike column.

### The lightning rod

Benjamin Franklin was the first person to connect lightning with electricity. He invented the 'lightning rod' which is a sharp pointed conductor installed vertically above a structure, and connected to a low resistance path to 'ground'. A lightning rod doesn't prevent a lightning strike, but directs it to ground through the rod, rather than through the structure. The sharp point on the rod creates a high electric field gradient making it easy to ionize the surrounding air which provides the lightning a path of least resistance.

In the early days of radio, antennas were connected to what are known as 'lightning-arrestors'. The arrestor is simply a spark gap connected between the antenna feedline and ground. If enough voltage appeared across the gap (400 volts per thousandth of an inch), a spark would jump, shunting the current to ground, away from the rig. This works better with rigs that use inductive coupling to the antenna, rather than direct-feed through a filter.

### Lightning protection

The best solution for lightning protection is to provide a means to disconnect the antenna from the rig, and ground it when it is not in use. This is a nuisance when the connector is coax, but you can mount a

## More volunteers needed

More volunteers are needed to keep the station open seven days a week. If you have an interest please contact KB3IV, WU3I or me. We will try to make the station more attractive to new volunteers by upgrading equipment, and adding new gear as soon as possible.

We plan to advertise outside of Phil-Mont on packet, other club publications and ham news services. If you have a suggestion for how to attract new volunteers, please contact us and we'll do our best to implement your ideas.

A new dual-band rig will be in soon to replace the Kenwood 2550 two-meter radio which will be used for packet. Some repairs have been scheduled, and will be completed soon I hope.

Many thanks to all the current volunteers who are doing a fantastic job of helping to preserve our hobby by exposing it to thousands of people who might not otherwise ever know of its existence. Through their efforts hundreds have become interested enough to join our ranks.

'Hope to see *you* at 'TKQ!  
—Bill Popovic, N3FVI

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REPORT

The International Voice of The Franklin Institute Science Museum

# 109<sup>TH</sup> MONTHLY VE SESSION STATISTICS MAY

25 candidates passed 26 elements  
5 new amateurs plus 11 upgrades

VE team members:

**Dusty Rhoads, ND3Q, Chairman**

Bob Wilcox, KE3CZ; Barb Levine, AA3DV; George Starks, AA2FU; Steve Hoch, WU3I;  
Wally Newell, K3JJO; Joel Kleinguenther, KA3SWU; Sal Valente, NS3Y

**AMATEUR LICENSE EXAMS HELD ON THE FIRST  
NON-HOLIDAY THURSDAY OF EVERY MONTH**  
Registration begins at 6:00 PM  
Doors close at 6:30 PM sharp



**THE FRANKLIN INSTITUTE  
SCIENCE MUSEUM**

For Information Call ND3Q at

(215) 482-0386 or 879-0505

Accessible by the handicapped.



ZCZC AG09

QST de W1AW

ARRL Bulletin 44 ARLB044

From ARRL Headquarters

Newington CT May 17, 1994

To all radio amateurs

**RULES PETITIONS DENIED**

The FCC has denied two petitions for reconsideration that sought a broader definition of permissible communications by amateurs. The petitions, by David Popkin, W2CC, and Rolland D. Cummings, WA0EDA, sought expansion of FCC rules changes that went into effect in September 1993, in Docket 92-136. Those new rules, the result of an ARRL proposal, gave amateurs greater flexibility in providing noncommercial communications for public events and permitted paid teachers to use amateur radio in their classrooms. The new rules also allow personal communications such as making appointments and "ordering pizza." The two petitions sought permission for amateurs to retransmit certain US Government broadcasts, such as time signals. Popkin's petition also sought a wording change to the new rules, from "classroom instruction" to "instructional activity." The FCC said that the ideas expressed in the petitions already had been aired and considered during the public comment period for PR Docket 92-136.

NNNN

via KE3CZ

grounded coax connector close by, and use that to accept the feedline when the antenna is not in use.

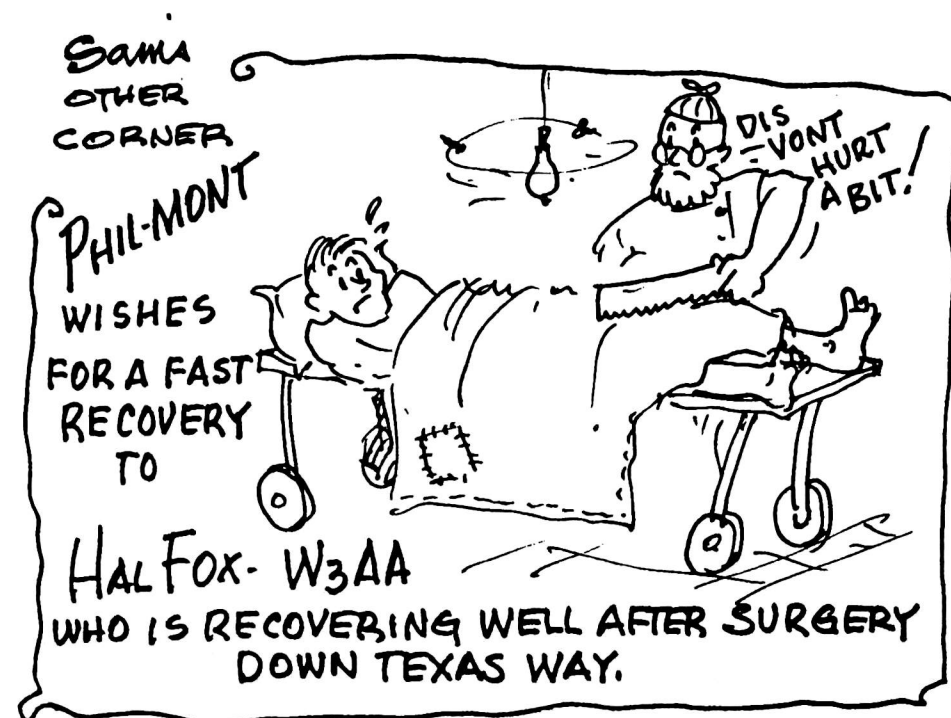
Other atmospheric electricity can have serious effects on your equipment through static-charge buildup. A well insulated, ungrounded antenna will charge to tens of kilovolts if a dry fog is carried over the antenna by a slow breeze. The same thing can happen during a dry snowfall. If an antenna charged like this is accidentally connected to a solid state rig, you stand a good chance of popping the input stages. A megohm resistor of any type connected across the antenna feedline to ground will bleed

any such charge without affecting your rig's performance.

One of my most unnerving experiences was operating an AM radio in an intense sand storm on the desert. I couldn't believe the sounds coming from the speaker. It sounded like a police siren, an ambulance wail, a jet engine on takeoff, and a nuclear submarine emergency drill all at once. And, there was lightning all around, but not a drop of rain.

Mother Nature is full of surprises. Watch that static electricity. ⚡

Auto-Call via World Radio



# Phield Day 1994 is a GO!

I would still like to hear from anyone interested in participating during this year's event; the response has been very "light" so far. Regardless, I have enough Field Day "VETS" to get things rolling.

A small group of us surveyed the area on a rainy afternoon a week ago, and determined where each station would be set. Some tests were made on HF and VHF, and surprisingly, the intermod will not be too much of a factor. If there are any volunteers with available tents, preferably something on the larger size, we could use it for shelter.

Here are directions to the site. Keep in mind, the exact address is "the foot of Culp Street" and *NOT* Domino Lane as is the perception of the TV tower location. This is roughly a mile south of the Andorra section of the city.

To get there from the north (Montgomery County), follow Ridge Avenue south into the city limits. After passing Cathedral Ave., the road forks, keep to the right following Ridge Ave. signs. Continue past Shawmont Ave. and a small firehouse on the right. When you see a muffler shop on

the right, and a 7-11 on the left, you're at Dearnley Street; turn right. Follow the street to Manti St. and turn left. Turn right onto Flamingo Street, then a quick left onto Culp Street. This continues into a driveway and down a hill; you've arrived!

From the city, I-76 to Belmont Avenue. Cross the Green Lane Bridge (over the river) and continue up Green Lane to Ridge Ave. Left onto Ridge, follow to the 7500 block and make left onto Dearnley Street. This is where a 7-11 is on the right, and a muffler shop is on the left. Follow Dearnley to Manti and make a left. Manti St. to Flamingo where you turn right. Flamingo to Culp Street where you turn left onto Culp. Follow Culp to the end where it becomes a driveway.

I will try to erect some small *fluorescent green* signs, about the size of typing paper with "FD" and an arrow pointing the way to the site once you turn off of Ridge Ave. This will help, because the neighborhood streets back there are somewhat confusing. Plus, we will be monitoring 147.03 for talk-in. ☺

## TO THE EDITOR OF THE BLURB:

Since the return of the Spencer's to this area, you have implicated them on the air as well as in the blurb as having "sponged" off other people. You have created an image of us as people who would not pay their own way. You should know the truth before printing such information. Many of our "friends" are aware of the kindnesses we have extended. You have not chosen to do so.

Editor's comment: Though this letter was unsigned, I feel compelled to break with tradition and reply anyway.—Oh yes, I know the truth, and so does everyone else in the club! Perhaps good-natured 'needling' is no longer acceptable on the repeater or in our newsletter. Please advise... many of us will sadly, no doubt, go elsewhere.

# GOODIES

Kenwood 70-cm hand-held transceiver w/ctcss encoder and wall charger model TH-415 .....	asking \$190 •
Kenwood 2-meter hand-held transceiver w/ctcss dip switch encoder leather carry case and wall charger model TR-2600 .....	asking \$160
Zenith computer model Z148-42 2-5¼" floppies, 640k memory amber monochrome CGA monitor RGB capability DOS 3.0 and support manuals this is a great packet, word processor starter system.....	asking \$125
Adjustable height office chair .....	asking \$15

Contact N3DHI—Rick Spencer (215) 884-7770

## FCC License Fees To Skyrocket!

*Ah hah!... got your attention didn't it? Some day it ~~could~~ (will) be amateur radio fees, so pay attention!—ed*

The cost of complying with federal licensing requirements for marine VHF radios could go from the current \$35 to \$105 unless boat owners let key members of Congress know what they think about this new "fee."

The Federal Communications Commission (FCC) was authorized by Congress in 1993 to begin collecting "user fees" from *all classes* [emphasis added] of FCC license holders.

BOAT/U.S. has been working behind the scenes to convince the FCC that drastically increasing fees for recreational boaters, unlike large commercial licensees, could mean that many will do without a radio on board their boats. Fewer people having

VHF radios on board means fewer people able to get weather updates, call for help in an emergency or able to hear another's call for help on the water. The Coast Guard is on record opposing the fees for boaters because of safety and search and rescue concerns.

BOAT/U.S. has been advised that decision-makers at the FCC have said they need direction from Congress in order to grant an exemption to an entire class. All BOAT/U.S. members, especially those from Michigan and South Carolina, are urged to contact the following:

- Rep. John Dingell, Chairman Energy & Commerce Committee, U.S. House of Representatives, Washington, D.C. 20515
- Sen. Ernest Hollings, Chairman Senate Commerce Committee, U.S. Senate, Washington, D.C. 20510. ☺

*Boat/U.S. Reports*



## PUBLIC SERVICE

Charlie Weigand, AA3EP



## THANK YOU FROM M.S.

Thank you to the seven Hams who volunteered their time and equipment on Saturday, May 14. Without your help the event would not be as great a success. We would like to thank N3KGG-Dave, W3YLT-Bob, K3JJO-Wally, N3RBX-Phil, N3NLR-Josh, KE3LK-Dave, and AA3EP-Charlie.

We also want to thank P.M.R.C. for the generous use of the repeater, and giving us the total use for the event. Everything went smoothly, and no real

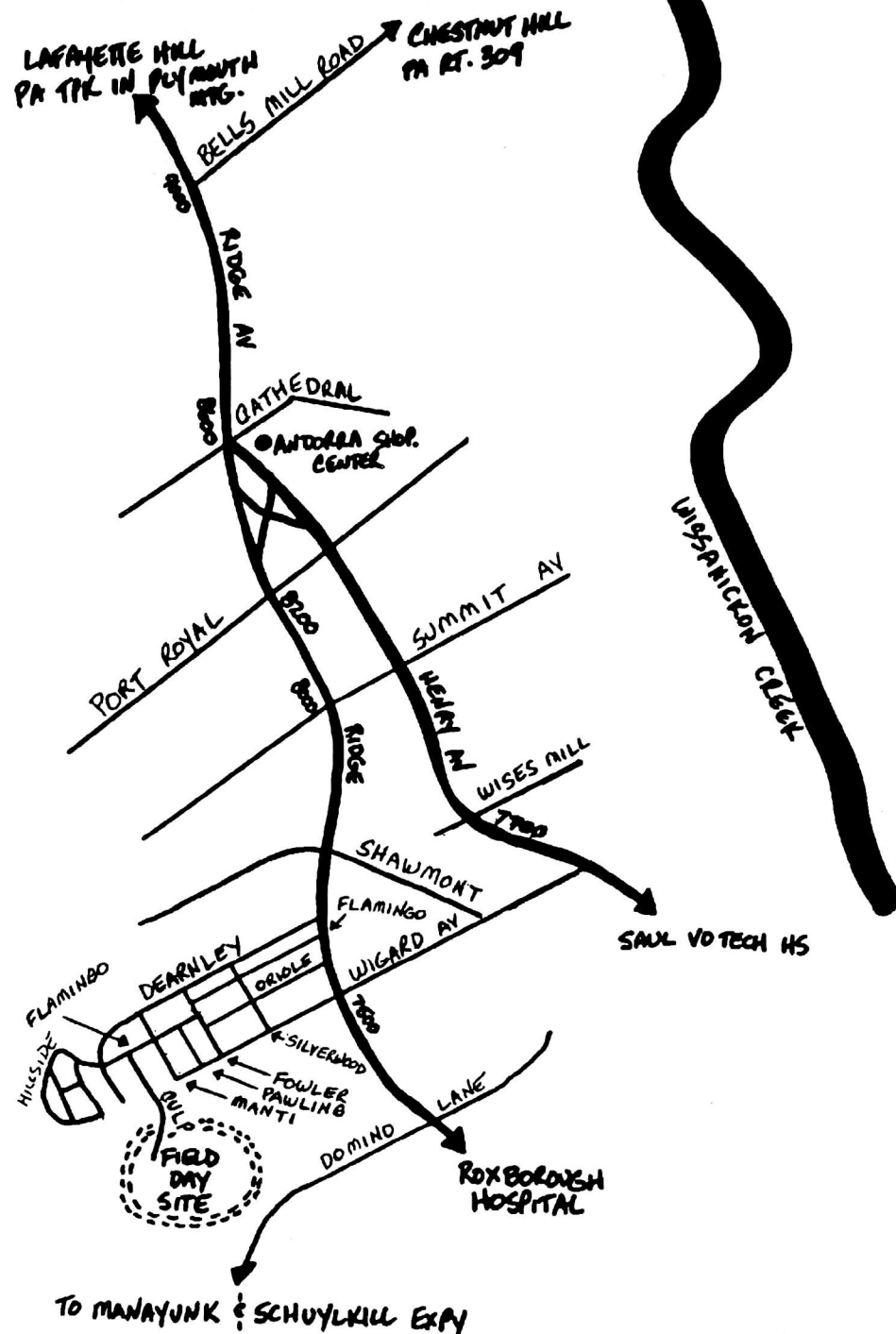
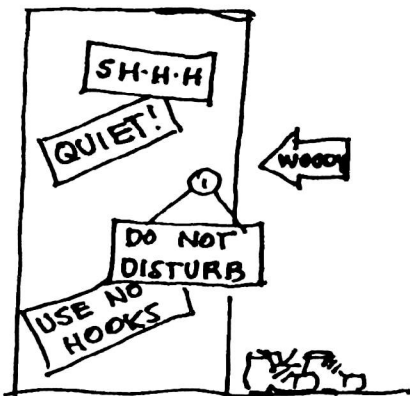
problems occurred. Maybe we can get a few more club members involved in future events, now that they had a chance to hear, first hand, what goes on on the Bike Tours.



Volunteers needed for the Core-states Bike Race on Sunday, June 5th, and the Arthritis Foundation Bike Tour on Saturday, June 11, from West Chester to Coatesville and back. We need your help, so give me a call, either on the repeater or at (215) 324-0167, and let me know when you can help. ♪

**WANTED:** 220-MHz Mobile Radios. Call Russ Stafford, AA3CH at (215) 859-9210.

**Sam's CORNER**  
THE SILENCE OF  
WOODY  
W3 PST., BY  
HIS ABSENCE  
ON THE AIRWAYS...  
ALL DUE  
TO A COMBINATION  
OF NECK PROBLEMS  
AND A SERIOUS CASE  
OF PNEUMONIA.. HOWEVER, HE IS  
ON THE MEND.



1994

JUNE

1994

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			<b>1</b> GENERAL MEETING at The Franklin Institute Refreshments at 7:00 p.m. Meeting starts after 7:30 <i>Hurricane Season Begins</i>	<b>2</b> LICENSE EXAMS at The Franklin Institute Registration begins at 6:00 Doors close at 6:30 p.m. <i>sharp!</i>		
<b>5</b> 2M NCS KB2ERL 10M NCS W3HFY 75M NCS W3PWG Corestates Bike Race	<b>6</b>  <i>D-Day 1944</i>	<b>7</b> CODE PRACTICE NET <i>Resumes in September</i>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b> Arthritis Bikeathon
<b>12</b> 2M NCS KB3IV 10M NCS W3HFY 75M NCS AA3CH	<b>13</b>	<b>14</b>  <i>Flag Day</i>	<b>15</b> DIRECTORS' MEETING at W3BBB's	<b>16</b>	<b>17</b>	<b>18</b>
<b>19</b> 2M NCS N3FTY 10M NCS W3HFY 75M NCS AA2FU <i>Fathers' Day</i>	<b>20</b> 	<b>21</b> <i>Summer Solstice</i>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b> Paddlerama & Field Day Begin
<b>26</b> 2M NCS W3GQD 10M NCS W3HFY 75M NCS KB3IV	<b>27</b>	<b>28</b>	<b>29</b>  OPERATORS' NET at 8 PM	<b>30</b>	What counts is what you learn after you know it all.	